March-April 1990

FAA Aviation NEWS

A DOT/FAA FLIGHT STANDARDS SAFETY PUBLICATION

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U.S. Department of Transportation
Federal Aviation Administration

FAA Aviation NEWS

March/April 1990
Volume 29, Number 2

Samuel K. Skinner, *Secretary of Transportation*
James B. Busey, *FAA Administrator*
Wayne J. Barlow, *Executive Director for Regulatory Standards and Compliance*
Daniel C. Beaudette, *Director, Flight Standards Service*
W. Michael Sacrey, *Manager, General Aviation Staff*
Gary D. Koch, Sr., *Manager, Accident Prevention Program Branch*
David Gelfan, *Editor-in-chief*
Louise Oertly, *Associate Editor*

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BRIEFS

ANTI-DRUG TRAFFIC MEASURES. FAA is inviting the aviation public to comment on a proposal to revise certain requirements concerning registration of aircraft, certification of pilots, and penalties associated with registration and certification violations. The agency is also announcing procedures for speeding up the processing of major repair and alteration forms concerning fuel system modifications. The intent of these actions is to assist law enforcement agencies in their efforts to stop drugtrafficking in general aviation aircraft.

For a copy of the Drug Enforcement Assistance NPRM (Docket No. 26148, Notice 90-9) contact FAA, Office of Public Affairs, APA-230, 800 Independence Ave., SW, Washington, DC 20591. Telephone: (202) 267-3484.

Comments on the rulemaking proposal should be marked Docket No. 26148 and sent in duplicate to FAA, Office of the Chief Counsel, Rules Docket, AGC-10, Room 916, at the above address. The deadline for receiving comments is May 11, 1990.

DUAT YOURSELF. The Direct User Access Terminal System (DUATS) is now operating 24 hours a day, in all 48 adjacent states. U.S. civilian pilots with a current medical certificate may use a personal computer to access preflight weather data and to file domestic VFR and IFR flight plans. This free service is provided through Contel ASC (1-800-345-DUAT) or Data Transformation Corporation (1-800-243-DUAT).

PIPER AEROSTAR AD. Airworthiness Directive No. 90-01-02, issued on January 5, 1990, and requiring immediate work on certain models of Piper and Ted Smith/Bulter Aerostar airplanes, has been amended and published in the Federal Register on March 1, 1990, effective immediately. The AD was originally sent out as a priority letter to all known owners and operators of the affected aircraft, namely: Piper--Models PA-60-600 (turbocharged), PA-60-601, PA-60-601P, PA-60-602P, and PA-60-700P, all serial numbered airplanes; Aerostar--Models, 600 (turbocharged), 601, 601A, 601B, and 601P, all serial numbered airplanes.

The amendment exempts those airplanes which have been modified by STC SA 980NM from certain requirements of the original AD. For further information contact Mr. W. H. Trammell, FAA, Aircraft Certification Office, 1669 Phoenix Parkway, Suite 210C, Atlanta, GA 30349. Telephone (404) 991-3810.

COMPLIANCE AND ENFORCEMENT

On March 5, 1990, FAA Administrator James D. Busey spoke to members of Congress, representatives of aviation organizations, and the press. His subject was the agency's new policy concerning regulatory compliance and enforcement.

Administrator Busey rose from the ranks in the Navy to become a four-star Admiral and Commander-in-Chief of Allied Forces in Southern Europe. He holds the Navy Cross for combat action in Vietnam, and he is an experienced and enthusiastic pilot.

His remarks on compliance follow:

Today I am announcing an action plan to strengthen the FAA/general aviation partnership for safety.

I want to say, right at the start, that while we will be making changes in our compliance and enforcement programs, we are doing so to improve safety. We will continue our insistence on total compliance with rules and regulations that have made American aviation the safest in the world.

I believe our FAA professionals have done a good job with the marching orders they have been working under. Now we want to modify those orders to further enhance compliance and thereby safety. We intend to complete final action on many parts of this plan within 90 days. The flying public should begin to see the results of the implementation by then.

Before discussing some of the specific changes we are going to make, I would like to give you the background that led us to undertake a review of the way we deal with general aviation.

When I first joined the FAA, I made a special effort to talk to a lot of people in aviation. I wanted to open up good communications. And I wanted to find out what the perceived problems were and what we might do about them. I heard a lot. You know the story as well as I do. So let's talk facts.

Just about every major general aviation user group and countless individuals jumped on me about FAA enforcement. They said they were being treated unfairly. They told me they were not getting the services they needed and they said they mistrusted the FAA.

I think we can agree that public confidence in the FAA and its enforcement policies is an essential element of aviation safety. These initiatives will benefit the public interest by fostering trust and confidence.

I want to emphasize that *voluntary* compliance is the bedrock of aviation safety in our country. The willingness to cooperate and to follow the rules is essential to safety. But that willingness to cooperate can quickly be undermined by the wrong kind of enforcement actions. We must work together as partners. Now I know when I use the word, "partners," some of you might think it is just public relations puff. It is not. Whether you fly a Piper Cub or a 747, or whether you work for the FAA, you and I and everyone in aviation have the same goal—which is to make flying as safe as possible.

The FAA has a number of tools it uses to achieve that goal. Those tools include good communications, training, education, counseling, and—lastly—enforcement.

With the program I'm announcing today, we're going to use every one of those tools more effectively and we're going to use the tools of communicating, training, and education, before we use the tool of enforcement where possible. This program identifies the direction in which we are going to move. It also emphasizes our responsibility for clearly communicating the compliance options to our inspectors and our customers.

Last summer, at Oshkosh, I announced a top-to-bottom review of the way we deal with general aviation. I commissioned a System Safety and Efficiency Review of our compliance and enforcement policies.

Last fall, with the cooperation of every major organization in general aviation—we held listening sessions around the country to give people a chance to tell us what they thought. We quickly and clearly confirmed that there is a good deal of misunderstanding about the enforcement process. This situation has led to mistrust and friction.

After the listening sessions, we got together again with representatives of the aviation community to sift through everything we had heard, look at our own data, and identify the issues that concerned us all.

The FAA team then came together again to draft the recommendations. I agree fully with these recommendations. They are the basis of the action plans we are announcing today. These actions are designed to maximize safety.

The FAA, exercising our leadership role in aviation, is executing today 34 action plans to further enhance the high degree of safety the United States is noted for and the public expects.

Today, we begin to move from the study and recommendation phases to the implementation phase. This process will take a little time, but the results will be worth it. We have cultural changes to make and attitudes to change.

This morning, as a first step, I have signed an order rescinding the mandatory requirement of a 60-day suspension for TCA violations. We continue to regard such violations as serious ones and we reserve the right to impose very serious sanctions when and if warranted. I believe, however, that we can achieve the desired result just as effectively by using a variety of compliance tools rather than automatically taking a pilot out of the air for 60 days.

Let me give you other examples of what we intend to accomplish. I think you'll agree with me that there will be substantive changes.

- We're going to make the application of our compliance procedures more flexible. We're going to put more emphasis on promoting compliance through education and open communications.
- We're re-energizing our Accident Prevention Program. Since this program is our primary means for communication and education

(continued on page 16)

The Road Back for Alcoholic Pilots

Re-certification is Now a Reality Following Treatment

Alcoholism means an inability to control drinking habits, so that drinking becomes a threat to health, work performance and social relationships. Alcohol abuse is recognized by the medical profession as a clinical disease, and any pilot with an established history of alcoholism will be denied medical certification.

Nevertheless, a number of pilots, ranging from student pilots to airline captains, have managed to continue flying while concealing an alcohol problem. This has been possible largely because of fear of losing a highly paid and desirable job. However, fellow crewmembers, as well as sympathetic friends and relatives, are becoming less reluctant to speak up, since they have become aware of the current program for rehabilitating such pilots—and recertifying them for flight duty in a relatively short period.

There is no "cure" in the normal sense of the word for alcoholism. The condition can be brought under control by means of a treatment program which includes hospitalization, psychiatric counseling, therapy, participation in a support group like Alcoholics Anonymous, and—*a lifetime abstinence from alcohol in any form.*

The good news is that pilots who accept treatment can fly again. FAA is willing to consider re-certification, after an abstinence of two years, or in some cases a special issuance of medical certification, after a shorter period of recovery for pilots with a history of alcoholism who participate successfully in an approved treatment program. For airline pilots, who can be monitored closely by designated representatives of their industry and union, as well as by medical and counseling specialists, return to the cockpit has been accomplished in as short a time as three months into the "recovery" status.

Since 1976, when FAA formally accepted an industry plan for re-certification of alcoholic airline pilots, thus enabling them to admit to alcoholism without fear of permanent grounding, more than 1,500 alcoholic airline pilots have been identified. Approximately 90 percent

achieved "recovery" and have been recertificated.

Motivation to admit to alcoholism; enter and remain in treatment is much lower for general aviation pilots whose livelihood does not depend on flying. There is also a much greater opportunity for these pilots to conceal drinking habits, since many operate from small airports, often fly alone, and may see a medical examiner as infrequently as once every two years.

According to the National Transportation Safety Board, during the seven year period 1976-81 more than 10 percent of the toxicological tests that could be made of pilots who died in aircraft accidents were positive for alcohol. However, no Part 121 scheduled air carrier accident has ever been attributed to alcoholism.

In 1987, the latest full year for which the NTSB has complete data, there were 31 U.S. Aviation accidents for which alcoholism was given as the probable cause, or as a major finding. That is a small percentage of the 1987 total figure (2,634 aviation accidents). However, it should be understood that it is often not possible to obtain toxicological evidence from pilots who survive an accident. Of the 31 alcohol-related accidents in 1987, 22 were fatal, resultings in 47 fatalities. All of these accidents were in general aviation, most of them in the category of personal flying.

The Board also noted that 12 percent of pilots in alcohol-involved accidents had no valid medical certificate—possibly indicating their concern that certification would have been denied because of alcoholism. Postcrash testing of surviving pilots for alcohol is not required.

Dr. Barton Pakull, chief psychiatrist of FAA Office of Aviation Medicine and Director of the agency's recertification program for recovered alcoholics, is concerned that alcoholic pilots may suffer a critical loss of reaction time and other basic abilities even when the blood alcohol level does not indicate recent drinking. There is also concern about the number of pilots who convince themselves that there is no real hazard as long as they respect the long-standing regulation that you refrain from drinking within eight hours of setting foot in a cockpit.

This rule was supplemented in 1985 with a Federal Aviation Regulation stating that no one with a blood alcohol concentration of 0.04 percent or higher could act or attempt to act as a flight crew member. Depending on such factors as the rate of alcohol intake, the individual's size, age and physical condition, etc., it is quite possible to retain a 0.04 BAC or higher for two or three times eight hours after the last drink.

By means of actual flight tests, carried out by Ohio State University investigators in a simple, forgiving aircraft (Cessna 172), experienced pilots with a 0.01 BAC were proven to be error prone in the cockpit. More numerous and serious mistakes were anticipated for these pilots in complex, more demanding aircraft.

The blood concentration level of alcohol is essentially a legal matter, since this information is not normally available to the pilot before flying. It is of much greater importance to understand that either regular use of moderate amounts of alcohol, or heavy periodic binges, can create certain neuropsychological impairments that may persist for *weeks after the last drink was taken.*

Pilots who drink consistently (but only when away from flying) may appear to be mentally intact, but their overall intellectual productivity could suffer from impaired attention, faulty concentration, and subsequent fatigue. Although the mind of an alcohol addicted pilot may seem active, the rate at which problem solving activities are performed slows markedly and contributes to poor performance. There may be thought disorders, resulting from uncertainty or momentary confusion about standard operating procedures. The pilot may fail to comprehend or quickly grasp the significance of a critical flight situation, or appear unable to organize his thoughts. While attempting to comply with a controller's instructions he may have trouble maneuvering the aircraft, observing the instruments, or scanning for traffic.

Short term memory, essential to a pilot for storing numerous details such as radio frequencies, field elevations, manifold pressure settings, etc., is known to become dissipated by consistent drinking.

Furthermore, alcohol, with regular use, has a mind-altering effect, often leading to depression or emotional over-reaction. Depression can affect reaction time and judgment; whereas irritability may result in disregarding important details or making hasty, unsound decisions.

In sum, the kinds of changes that can take place in a pilot with a drinking problem are often too subtle to be readily recognized by the individual or by persons around him who are not trained in this field. Even when the pilot himself becomes aware that there are problems, he will tend to deny that they are associated with alcohol intake and will tend to blame others or complain about being dogged by bad luck.

The functional difficulties experienced by a pilot who is dependent upon alcohol become increasingly apparent as a result of the normal aging process. At any age alcoholic pilots are also likely to find unaccustomed difficulty dealing with flight conditions involving depleted oxygen, darkness and poor visibility, or prolonged IFR operations.

Although avoiding alcohol for at least eight hours before flying is sound advice for all pilots, it does not follow that a pilot with a drinking problem can safely separate the drinking and non-drinking phases of his life. As with most addictive drugs, periods of abstinence following periods of indulgence can bring on severe withdrawal symptoms—sometimes to the extent of total incapacitation. Disabling seizures have occurred to pilots in the cockpit without warning. For a first-hand account of why a drinking habit cannot be isolated from flight responsibilities, see the following article, "And Another One."

FAA's office of Aviation Medicine has provided Aviation Medical Examiners with detailed guidelines for diagnosing alcoholism in pilots. Some of the symptoms are:

Physical evidence. The odor of alcohol on the breath of a certification applicant, especially if the examination is done early in the day, should lead the physician to question the examinee very closely about his or her drinking, recently and in general. It may be appropriate to request that the applicant voluntarily submit to a blood alcohol determination as a means of determining exactly how much drinking has been done. Any amount of alcohol in the system at the time of a routine physical examination should make the examiner suspicious of the presence of an alcoholism problem, especially if the test was done in the morning.

Blackout. This occurs when the individual becomes intoxicated and though seeming to be functioning normally will be unable to remember all or part of what happened after a certain point. These are obviously frightening experiences. If a person could control the drinking, he or she would not allow more than one blackout to happen. Therefore, if a history of more than one blackout is given, an alcoholism problem should be suspected.

Family, Legal, and Employment Problems. Investigation of the family and marital history and social life is very valuable. When there are divorces or separations related to alcohol consumption, when there are arguments and/or physical abuse while drinking, when there are family outings or social activities canceled or curtailed related to drinking—this may be evidence of the adverse effect of alcohol consumption on family relationships.

Alcoholism will tend to bring on legal and social problems such as "driving under the influence" (DUI), or public intoxication arrests, and fights while intoxicated. Even without other evidence of alcohol abuse, two DUI's (driving under the influence citations) within a short period of time (e.g., 4 years), or multiple DUI's over a long period of time are highly indicative of alcoholism. (FAA is now able to obtain DUI records of pilots through the FBI database, when that information is made available by local law enforcement agencies.) Alcoholics may also admit to losing or changing friends frequently, and to socially inappropriate and embarassing behavior related to their drinking.

Alcoholism has as adverse effect on employment. Individuals with alcoholism problems frequently have a history of job

loss or a pattern of job changes attributable to drinking.

Employed individuals with alcoholism problems use inordinate amounts of sick leave. There is often a pattern of lateness and a tendency for absences on a Monday after a weekend off. They often have unauthorized absences during the work day and frequent long lunches. They fail to meet deadlines or prearranged appointments and manifest gross lapses in judgment and conduct, especially during business trips. Most importantly, alcoholics tend to have accidents on the job. Even if an individual is self-employed, there may be evidence of deterioration in performance or neglect of responsibilities which others will relate to drinking. Such alcoholics will eventually show poor business judgment with resultant business reverses and financial losses.

Emotional and Medical Problems. People with alcoholism have emotional difficulties and may therefore mask their alcoholism with frequent complaints of depression and anxiety. A common indicator of an alcoholism problem is the observation by others of a personality change when drinking. This usually means that the individual becomes irritable and harder to get along with when drinking, and is sometimes even verbally or physically abusive. Alcoholics often point to stresses in their lives to explain their anxiety and depression. Careful scrutiny will usually reveal that it is the consequences of their drinking that cause the so-called stresses in their lives.

Dealing with the Alcoholic. Dr. Pakull has cautioned examining physicians that because of the denial behavior typical of alcoholics, it is very difficult to confront such an individual. One must expect to face extreme hostility, rationalization, and manipulative attempts to avoid either facing the fact that there is an alcohol problem, or the need of entering into treatment to do something about it.

Doctors are advised that it is extremely useful to have available a "significant other" person who can supply truthful and accurate information about the factors related to alcoholism in order to enable the examiner to make the correct determination. Such a person (or persons) can also help to break down the denial and allow the alcoholic to accept treatment. The only important exception to this is when that other person is also an alcoholic or is a co-alcoholic, who for his or her own reasons supports the alcoholic's denial.

To determine that an alcoholism condition exists with respect to Federal Aviation Regulations, substantial documenting evidence must exist. However, in those cases where there is reason to believe that the applicant is excessively consuming alcohol, but a clear cut diagnosis cannot be made, deferral of certification is appropriate. Under these circumstances, the Federal Aviation Administration will gather such additional information as may be necessary to establish or disprove the diagnosis.

For airline pilots the recovery program is often pre-structured as a result of agreements between FAA and the airlines, the Airline Pilots Association and other union organizations, who monitor the treatment and assume some measure of responsibility. Since alcoholism is considered a disease, the cost of treatment may be largely borne by the pilot's health benefits.

For these pilots, the first step on the road to recovery begins with several weeks of intensive rehabilitation in a special hospital. At this time the pilot is given a complete medical checkup and evaluated for alcoholism, as well as associated organic disease. If alcohol dependence is diagnosed, a controlled procedure of withdrawal from addiction will be carried out under medical supervision. At the same time the pilot will receive psychiatric care and counseling. He will also participate in group therapy, as well as occupational therapy.

After alcohol withdrawal is completed the pilot will leave the hospital but remain in a program of continuing care, including regular therapy and counseling sessions, office visits to his physician and contacts with union and airline representatives. He is encouraged to join a support group, such as A.A. or Birds of a Feather and attend meetings regularly. Total abstinence is a must, and there may be periodic tests for blood alcohol.

When his physician, airline chief pilot, union representative support group and family members all agree that he is in full recovery, the pilot will undergo a complete medical evaluation. If the results are favorable and the airline is willing to place him back in flying status and monitor his condition, FAA will consider recertification.

For the general aviation pilot, the burden of undergoing treatment and establishing abstinence falls on the individual. Usually the pilot's family physician will arrange for the initial treatment, medical evaluation and withdrawal procedure, as well as subsequent therapy, counseling and participation in a support group. The road back is longer for these pilots, who usually will have to remain alcohol-free for at least two years before re-certification may be applied for.

At this time the pilot will have to present to FAA satisfactory evidence that he is in recovery. In addition to medical and therapist data, this will include information concerning the applicant's driving record and workplace performance, as well as reports from family members, clergymen and associates. He may have to document his attendance at support group meetings.

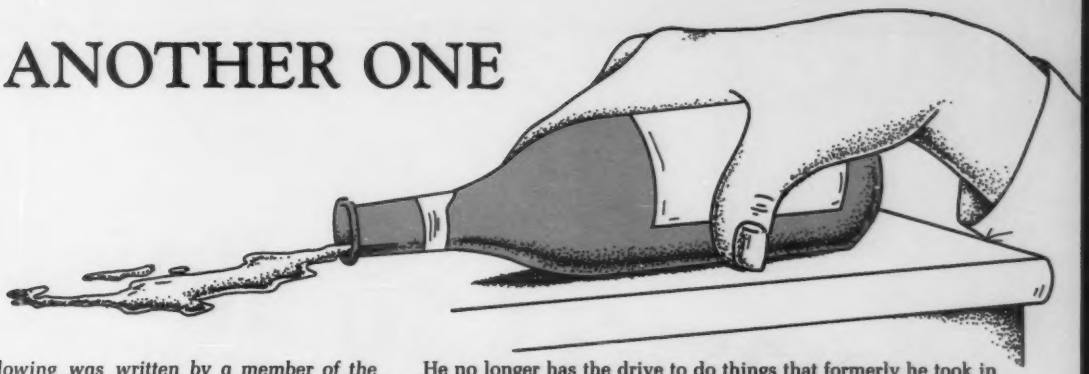
It is a big step back up into the cockpit, but the door is definitely open. ■

PILOTS SUPPORT GROUP

Contact Tim J., Alternate Secretary
Birds of a Feather International
P.O. Box 595094
Miami, FL 33159
305 887-0749

Note: Association with A.A. or Birds of a Feather does not constitute a history of alcoholism and is not in itself grounds for denial of medical certification.

...AND ANOTHER ONE



Editor's Note: The following was written by a member of the Toronto Nest of "Birds of A Feather", a pilot's organization affiliated with Alcoholics Anonymous. This group would like to see the airlines, or other segment of the aviation industry, produce a video based on this story, for use at pilot seminars everywhere.

Consider an average airline pilot with a normal home life, nice family, athletic type who plays golf and loves to go out with the boys for a game of hockey and a beer after. On weekends he likes to get together with other families or friends for some socializing. Usually this is accompanied by good food and some drinks. He is a good conscientious pilot keeping up to date with the latest developments in his job. His family is a happy one. He is an occasional drinker, but certainly is not addicted.

Then something happens. His father dies suddenly. He had always felt close to his father, although he had seen little of him in recent years. The evening after the funeral he has a drink to "drown his sorrows." And another one.

The next day thought of his father's death is still there, so he has a drink to his memory. And another one, and another. Life goes on and he has to go back to work. Like a good pilot he does not have a drink 12 hours before duty and feels pretty good. On the layover he has a couple (or more) with the crew and before going to bed he has a nightcap in the bar, drinking to the memory of his father. And another one. "Here's to you Dad, God I miss you. Here's to you. It's all right, I remember it (12 hour rule), I'm not flying until tomorrow afternoon."

Later the next day he comes home, after work, late. Everybody sleeping, He sits down, feels blue and has a quiet drink to relax. And one to Dad, and another one. The days go by and he is now in the habit of having one for Dad regularly by himself, before going to bed. And usually another one.

Then one day his wife is involved in a car accident and is seriously injured. He spends days at the hospital until she is out of danger. He goes home, exhausted and lonely. He has a drink to relax, and one to the recovery of his wife, and of course one to Dad. And another one for good measure. His wife comes home from the hospital. Cause for celebration with a nice meal with a couple of bottles of wine. "A drink to your health, dear", and one for good old Dad, and another one to good friends and family.

Life goes on with its usual little problems, and big ones, all reasons to have an occasional drink, and another one. He carries out his flight duties, observing the no drink rule carefully, but there is always time in the intervals to have the occasional one, and another one.

His wife wonders whether he isn't drinking too much. Ah, what does she know, he feels fine, he's doing his job, brings enough money and nobody is suffering. Right?

His wife keeps asking him to cut down, she's worried. "OK, if that's what she wants, no more social drinking. I'll stop by the liquor store and get my own bottle and hide it in the garage. Then when I feel like having a drink, I will have one without her knowing it. She notices that he is not doing the jobs around the house as he used to, but she doesn't want to nag. He sits around a lot, usually in front of the TV.

He no longer has the drive to do things that formerly he took in his stride. "Damn simulator check coming up. Should bone up for it. I'll do that tomorrow." But he forgets, and does a poor job in the simulator. He passes though, which is a good reason to celebrate with a drink (in the garage) as well as one in the house. And another one.

On a ski vacation he moves clumsily and has a bad fall; he breaks a leg in two places. His leg is placed in a cast and he hobbles around on crutches. Now for six weeks he is home all day with not much he can do, or wants to do, but get to the garage for a little snort. Not being on the flight roster, he can have a couple of glasses of wine with dinner and openly he can have a nightcap to his better health, one for that damn leg, one to his wife's health, one for dear old Dad. etc.

Slowly he recovers and the day comes when he is going back to work. A good occasion to celebrate with a couple of drinks ... but not after 10:00 p.m.

Next day, up in the air at 10 in the morning, roundtrip to L.A. Everything goes well on the flight out, and on the ground he stays away from the bar, like any conscientious pilot. Airborne for the return at 11 in the evening, quiet night, lots of stars, and the lights of the city on the horizon. All of a sudden, without warning, he slumps forward and is out cold. The second officer is trying to help him, they offer him oxygen. The other two pilots bring the flight safely down. An ambulance is called, and he is taken off before the passengers, then rushed to a hospital.

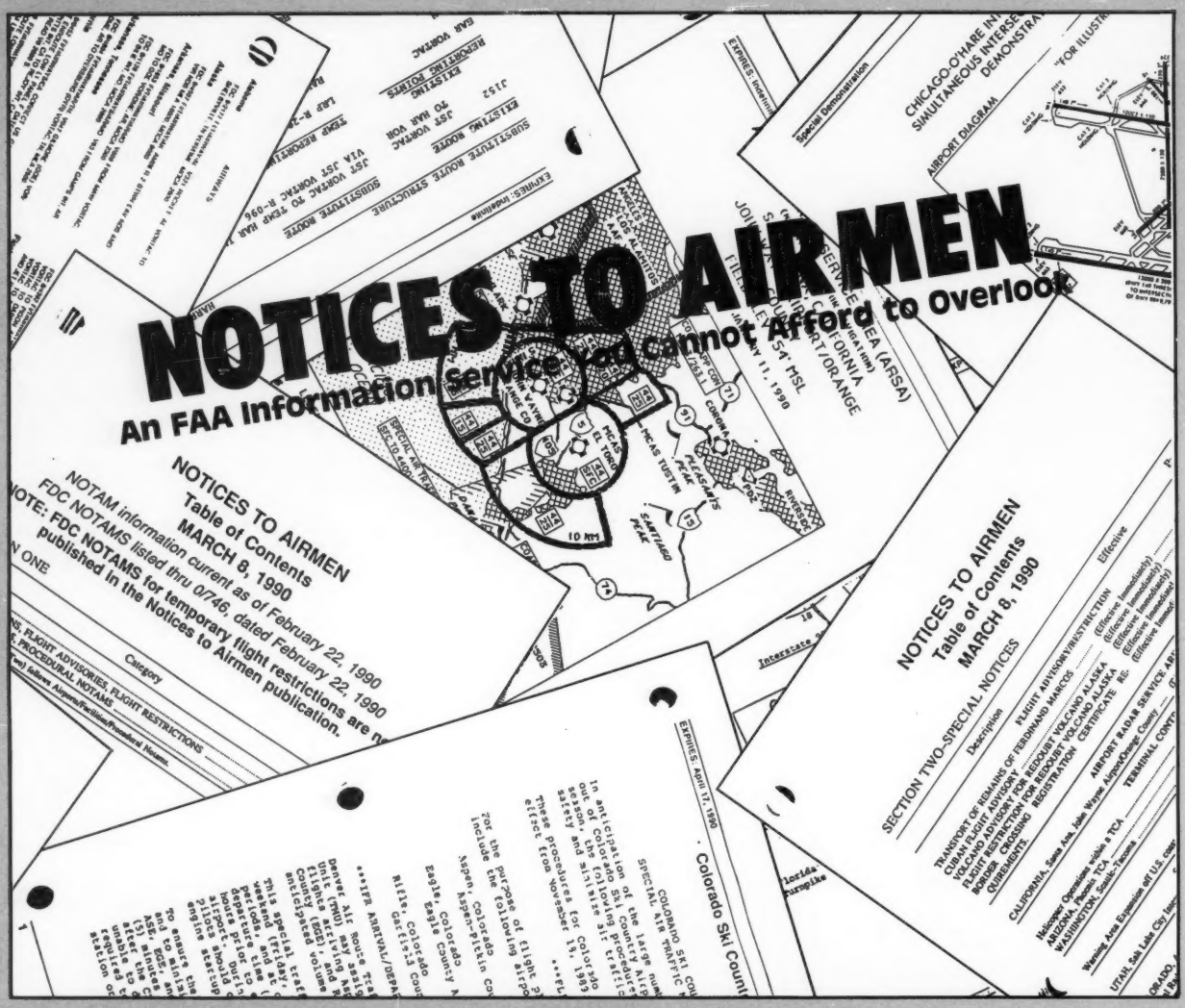
The diagnosis: Incapacitating seizure because of ALCOHOLIC WITHDRAWAL!! He had observed the no drinking rule faithfully, but he was still in trouble. His body had been used to a daily intake of alcohol and now he had not had any for over 24 hours, resulting in severe bodily shock. Something they don't warn you about. Everyone says that drinking is bad for your health, but do they warn you that for a confirmed drinker, an abrupt drying out can kill you? Would you believe it if they did?

You had better believe it when alcohol intake is stopped, the body reacts to the abstinence in a variety of ways. Before the actual seizure you can have symptoms of withdrawal such as anxiety, irritability, sleeplessness, lack of appetite, vomiting, and shaking to "DT's" or delirium tremens, marked by hallucinations, agitations, disorientation and mental confusion. All that because you stopped drinking!! It is known that many pilots (and other professionals) live a lifestyle similar to the aforementioned pilot, and they can put themselves and others in great danger simply by NOT DRINKING. Now think of the next generation 2-pilot aircraft, and both pilots following similar life styles. Is it not possible? Think about all the unexplained fatal crashes in the past. How many were caused by an alcohol related incident like the above? Think about it!

You are not alone. Through this publication you can contact the nearest pilot support organization like our Birds of a Feather "Nest." We are pilots, like you, who were lucky enough to survive the hazards of the Habit. We are in recovery and flying honestly again, or on the road back to the cockpit.

Join up while you can.

Anonymous
Toronto, Canada


NOTICES TO AIRMEN
An FAA Information Service You Cannot Afford to Overlook
NOTICES TO AIRMEN
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Everybody loves surprises—except pilots. Airmen are in the habit of depending upon airport accommodations, air traffic services, NAVIDS, etc. to continue functioning as usual. They find it quite upsetting to arrive at a destination airport and observe cattle browsing along the runway, or when attempting a night landing to discover that the airport is closed, or its lighting facilities are not operating.

Information on many recent or abrupt changes in the airspace system is provided via a Notice to Airmen—or NOTAM. Most NOTAM's are available from, and routinely provided by, the flight service station in conjunction with weather information requests; however some must be requested specifically by the pilot or obtained through aeronautical information publications. An understanding of how the system operates can help pilots to avoid the painfully unexpected.

There are three types of Notices generated by FAA: NOTAMs (L), NOTAMs (D), and FDC NOTAMs.

The "L" in NOTAM (L) stands for "local" and describes the distribution range of the information. Conditions described in NOTAM (L)'s are given distribution to facilities and offices in the local area and retained at the FSS for delivery to pilots operating at the affected airport. They are *not* included in hourly weather reports. NOTAM's (L) may include conditions such as taxiway closures, men and equipment near or crossing runways, airport rotating beacon outages, and other information that will have little impact on most operations. However, for some airports not qualifying for wider NOTAM distribution requirements, the NOTAM (L) may report significant conditions such as runway or airport closures. This information is only available from the FSS in whose area the airport is located. DUAT vendors do not supply NOTAM (L) information.

NOTAMs "L" remain in effect until the initiator cancels them, or they become permanent by publication.

NOTAMs (D)

NOTAMs (D), in addition to local dissemination, are also given "distant" dissemination over the entire network. They contain information on navigational facilities that are part of the National Airspace System, on all airports with approved instrument approach procedures, and for certain VFR airports (noted in the *Airport/Facility Directory* with this symbol: §).

NOTAMs (D) items are serious enough to affect whether or not an airport or certain facilities are usable. NOTAMs (D) can be initiated either by an airport manager, the air traffic service, or an FAA regional or

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field office to a local FSS. They are then sent to the U.S. NOTAM System (USNS) for national and in some cases international desemination. Domestic NOTAMs are also then sent to Weather Message Switching Center to be added to the hourly weather reports provided to *all* flight service stations. Some air traffic service facilities can access this database as well, but the FSS is the best source. NOTAMs (D) remain valid until expiration (usually set by the initiator) or cancellation or until they appear in FAA's biweekly NOTICES TO AIRMEN publication.

An FDC (Flight Data Center) NOTAM is regulatory in nature and is initiated and transmitted by FAA's U.S. NOTAM office, a part of the National Flight Data Center (NFDC) using all available means—FSS's and the biweekly publication. The center is located in FAA headquarters in Washington, DC, where safety information for a number of aeronautical publications (AIM, for example) is compiled and organized. NOTAM information is derived from FAA regional offices and the Air Traffic Service or an airport/facility operator. FDC NOTAMs remain in effect until cancelled by NFDC.

FDC NOTAMs are considered regulatory because they deal with airspace, airways, instrument approach procedures, and aeronautical charts.

Temporary flight restrictions—which have the weight of regulations—are also initiated by FDC NOTAM. (Temporary flight restrictions are put into effect over an area where some incident or event has generated a great deal of public interest and is, therefore, likely to create an air congestion hazard. Major sporting events, parades, natural disasters, etc. are typical. A well-known temporary flight restriction was that imposed over Mt. St. Helens in Washington State during its active period).

Until they are published in the biweekly booklet, FDC NOTAMs are automatically included in the *standard briefing* given by an FSS briefer, as are NOTAMs (D).

In any of the other briefings offered by an FSS—*abbreviated, outlook,* or *inflight*—NOTAMs must be *requested.* Unpublished NOTAMs obtained from an FSS are also called Class I NOTAMs.

Published NOTAMs, also called Class II NOTAMs, are deleted from the data base and may no longer be accessible to FSS briefers. Conditions permitting, a briefer may be able to locate a specific published NOTAM requested by a pilot.

The NOTAMs in the Class II publication are of a temporary nature but expected to remain in effect for an extended period. The information will be published every two weeks until it expires or is cancelled. Permanent changes are often published as an interim step before its inclusion in an instrument approach plate, on appropriate charts, or in the *Airport/Facility Directory.* Temporary and permanent items are differentiated by the notations *FI/T* (flight information which is temporary) and *FI/P* (flight information which is permanent), respectively, in the publication.

"Notices to Airmen—Class II NOTAMs," may be purchased on a subscription basis from the Government Printing Office, Superintendent of Documents, Washington, D.C. 20402. The most recent price was $79.00 per year (26 issues) for domestic delivery, but check with GPO before ordering. The telephone number is (202) 783-3238.

Information in this publication is not limited to a specific geographical area, like NOTAMs (L), or to specific airports, facilities, etc., like NOTAMs (D). It encompasses everything you need to know about changing conditions in the airspace or on the ground. For all airports the publications provide abandonments, openings, or closings; and openings, closing, commissioning, and permanent closings of runways.

For all IFR airports and selected VFR airports, Class II NOTAMs provide information on:

1) airport operating restrictions for air carriers and crash/fire rescue facilities;
2) approach light systems;
3) control zones;
4) displaced thresholds;
5) runways; and
6) runway light systems.

Class II NOTAMs also provide information on NAVAIDS, communications, and other services. For NAVAIDS they indicate commissioning of new facilities, decommissioning of old, frequency changes, restrictions, and outrages. Information on air traffic control towers and approach controls include commissionings and decommissionings and hours of operation. The same type of information is presented for flight service stations and remote communications outlets, as well as for on automated weather observing systems.

NOTICES TO AIRMEN is divided into two sections. Section I includes material on:

- Airways
- Flight Restrictions
- Airports/Facilities/Procedural NOTAMs

Section II consists of "Special Notices", such as:

- Special terminal radar procedures
- Control Zone amendments
- Special aerostat operations
- Telephone access to flight service stations
- Special use of EFAS-dedicated air-ground frequency
- Aviation weather reports
- Substitute routes
- Special demonstrations
- Military operations
- Special air traffic management programs, etc.

Temporary flight procedures for a special event, such as a national fly-in.

SECTION I

The material in Section I is greatly abbreviated, to save space, but a glossary of abbreviations is included in the booklet. The "Specials" in Section II often contain detailed graphic displays.

Other than directly from a briefer or the NOTAMs publication, there are several methods to obtain NOTAMs, particularly inflight. Some FSS's make unscheduled broadcasts over VOR's that have voice capability (no underline on the frequency shown on charts). These "Aviation Broadcasts" may be issued when a special weather report is made, when urgent PIREP's should be disseminated, or when NOTAMs (L) or (D) are particularly important.

For example, a runway might be NOTAMed closed for a short time to remove snow or ice. These broadcasts are made randomly (they are *unscheduled*) and would require the pilot to monitor the VOR frequency constantly.

Another way to pick up NOTAMs is via a Transcribed Weather Broadcast (TWEB) over selected VOR's and NDB's (indicated by a small, solid box in the lower right-hand corner of the NAVAID information box on charts).

There is also a type of NOTAM involving foreign locations, and that includes Mexico and Canada. The Flight Data Center keeps foreign NOTAMs on file, and they may be obtained from any FSS on request. *International NOTAMs* is another biweekly publication featuring NOTAMs for and about foreign locations. Content and format are similar to that for the domestic publication. This subscription also comes from the Government Printing Office (address above), and the current price is $34.00 per year.

As a rule, IFR pilots have paid more attention to NOTAMs than VFR pilots, for obvious reasons. Unexpected changes in the airspace system are more likely to be critical in instrument conditions.

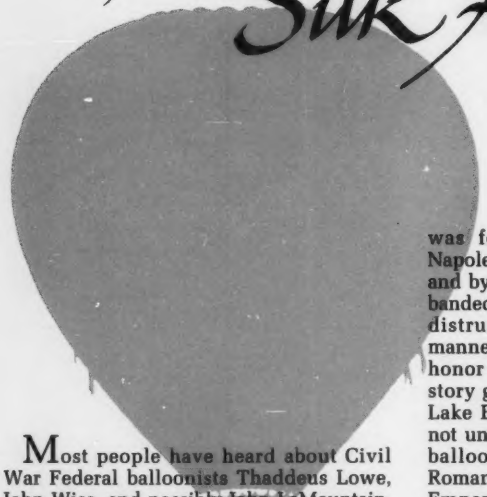
However, NOTAMs are part of the "available information" which all pilots are expected to consider before embarking on a flight, and may be held legally responsible for any accident which might have been avoided had the pilot been fully informed. If you utilize a non-FSS briefing, the responsibility is yours to check on the airport and other facilities you will use on your own—as by telephone.

In flying, what you don't know *can* hurt you. ■

SIDEBAR ON SPECIAL NOTICES

SPECIAL NOTICES are usually news items which have significant impact on flight safety but do not meet standard Notices to Airmen criteria. They often fall into the category of special one-time or annual events which attract unusually high concentrations of air traffic, temporary military operations, issuance of special flight rules, or descriptions of new air traffic control procedures.

The Confederate Silk Air Corps



Most people have heard about Civil War Federal balloonists Thaddeus Lowe, John Wise, and possibly John LaMountain, but how many are aware that the Confederates joined the ranks of aeronauts during this troubled time in the 1860's? The South did not lack for dashing young men willing to risk their lives aloft; only a dearth of necessary materials and a few unlucky mishaps prevented Confederate balloonists from influencing the outcome of the War significantly.

French pioneer aeronaut Joseph Montgolfier predicted ballooning's future military use even before the first balloon was successfully launched in 1783. He imagined that one day balloons would be capable of carrying entire armies of men into enemy territory. Ben Franklin was more practical, proposing that two-man balloons could drop from the clouds behind enemy lines. The number of balloons he deemed necessary for a victorious assault was 5,000. However, it was Andre Giroud de Villette, an early balloon passenger, who first suggested that airborne observers could spot "the positions of an enemy, his movements, his advances, and his dispositions" and signal this intelligence back to headquarters. This suggestion was adopted when actual military use of balloons began in 1794 during what later would be called the Napoleonic War.

The French Army's *aerostiers* successfully proved themselves in their first battle and a military ballooning school was formed. Despite their successes, Napoleon Bonaparte did not trust balloons and by the turn of the century he had disbanded the army's air division. In 1804 his distrust proved justified when an unmanned balloon was launched in Paris in honor of his coronation as emperor. The story goes that it landed the next day in Lake Braccinao, northwest of Rome, but not until it first deposited a portion of the balloon's festive crown decoration on Roman Emperor Nero's tomb. The French Emperor was not amused; he was also a very superstitious man.

There were a few other aborted attempts at military ballooning in Europe, but it was not until the American Civil War that it was successfully used for extended periods of time. The earliest record of ballooning in the Civil War was in June of 1861 by the Union. After that there were several reported sightings of Confederate balloons, usually in locations where a Federal balloon was documented, so these sightings were later discounted. The first serious report of a Confederate balloon appeared in July 1861—an unmanned signal craft sighted outside Washington, DC. It was not until August that further documentation proved the existence of a manned Confederate craft.

This balloon's history is something of a mystery. The balloon was obtained by Confederate General P.G.T. Beauregard. However, Richmond, capital of the Confederacy, had not been forthcoming with the necessary construction and maintenance funds, so they had to be raised from an undisclosed "private source." According to Beauregard's inspector general, the balloon was poorly constructed and its first flight at Munson's Hill, VA, was not successful.

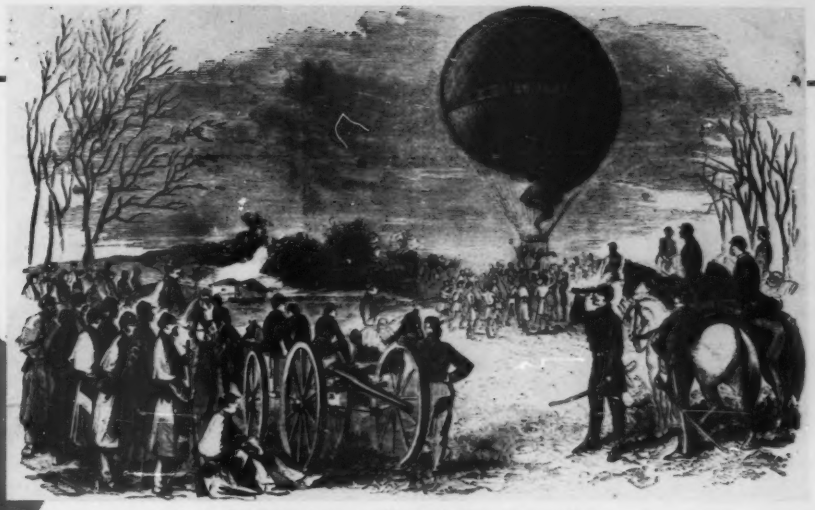
This flight took place in September of 1861. It would not be until the following April that a Confederate balloon again made an appearance, this time under the command of General Joseph E. Johnston near Yorktown, VA. The history of the "second" balloon is better documented as the aeronaut and flights are known. But was it the same balloon or a new one? As early as August there had been correspondence from Johnston to Beauregard stating: "... Let us send for it (the balloon) we can surely use it advantageously." Had the old balloon been revamped and used again? It seems feasible when you consider the shortage of supplies available in the sea-blocked South.

The Union balloons were made from good quality material, usually silk, which was available in the industrial North, and fueled by hydrogen gas. The Union balloonists had even devised portable gas generators to use in the field.

In comparison the Confederate balloon was a poor imitation. The envelope was a big cotton bag made airtight by a coating of some sort, and below it, a good-sized hamper or basket for the observer. It barely held the weight of one aeronaut, so to reduce weight only one tether line was used, which allowed the basket to twist and turn, unlike the Union's three line tether system which stabilized the basket.

Federal balloonist Lowe, upon observing the Confederate balloon, stated that it had "neither shape nor bouyance" and predicted its early demise. Out of necessity it was a hot air balloon fueled by pine knots soaked in turpentine. The equipment and materials needed to make hydrogen gas were only available in the few big cities of the primarily agricultural South.

Twenty-one year old Captain John Randolph Bryan was aide-de-camp to General John B. Magruder when he volunteered to man the balloon. He knew the Yorktown area well, and armed with semaphore flag and a brief of information required he took to the air on April 13, 1862. This hot air balloon was a makeshift affair which presented Bryan with two problems to contend with as he gathered information and rapidly sketched the Union positions: the



Professor Lowe making a balloon ascension on a Reconnoitering Expedition to Vienna, VA

single tether line, allowing constant wind movement, did not give him a stable work platform and his flight lasted only until his envelope cooled.

Nevertheless, he had successfully completed two missions when he received orders for a night ascent. Fearing a dawn attack by Union forces, General Johnston wanted information on troops movement and the possible direction the attack would come. All went well until a bystander got entangled in the tether rope and was being drawn toward the windlass. He was released when a quick thinking friend cut the rope, saving his comrade but also releasing the balloon. After being blown between opposing army lines, the wind finally sent Bryan toward his own troops.

However, his relief was short lived. The Second Florida Regiment thought he was a Union spy and open fire as he approached their ranks. He finally landed across the river near Williamsburg and made his way back to Yorktown to report the needed information. Confederate troops were ready when the dawn attack arrived.

Being shot at by enemy guns was the aeronaut's lot if he got too close, but airmen on both sides were badly upset by "friendly" fire. (Lowe finally had stars and stripes painted on his basket to let the Union troops know he was on their side.)

In June during the Seven Days Battle for Richmond, another Confederate balloon made its appearance. Writing in the *Century Magazine* in 1886, Confederate General James Longstreet recalled:

"The Federals had been using balloons in examining our positions, and we watched with envious eyes their beautiful observations as they floated high up in the air and well out of the range of our guns. We longed for the balloons that poverty denied us. A genius arose for the occasion and suggested that we send out and gather together all the silk dresses in the Confederacy and make a balloon. It was done, and soon we had a great patchwork ship of many and varied hues. The balloon was ready for use in the Seven Days Campaign (late June 1862 near Richmond, VA). We had no gas except in Richmond, and it was the custom to inflate the balloon there, tie it securely to an engine, and run it down the York River railroad to any point at which we desired to send it up. One day it was on a steamer (going) down the James when the tide went out and left the vessel and the balloon high and dry on a bar. The Federal gathered it in, and with it the last silk dress in the Confederacy. This capture was the meanest trick of the War and one I have never yet forgiven."

Definitely a tale to inspire romantic legends—but that is all it is, a legend. The true story of the "Silk Dress Balloon" is much more practical. Captain Langdon Cheeves was a Confederate engineer overseeing the construction of dams and fortification in South Carolina. His observation of a Union balloon perhaps gave him the idea to build one for Confederate uses. Silk was a rare commodity in the war-torn South, but in the Spring of 1862 Cheeves was able to obtain from Savannah and Charleston enough 40 foot dress lengths to construct a balloon of about 7,500 cubic feet.

To make the colorful silk envelope airtight, it was saturated with a solution resulting from boiling rubber car springs in naphtha. When the balloon was ready the Captain sent it to Richmond for President Jefferson and General Robert E. Lee to use as they saw fit.

General McClellan at this time was trying to capture Richmond. So Confederate artillery chief E.P. Alexander quickly put the balloon to work on June 27. Gas works were available in Richmond; the balloon was easily inflated and then positioned to report on troop movement. However, on July 4 disaster struck. The armored ship *Teaser* was going down the James River when it was attacked by two Union ships (one was the ironclad U.S. *Monitor*) and run aground. The crew abandoned ship and its cargo, the Cheeves' balloon.

But the usefulness of balloons had now been proven and Confederate General Beauregard was finally able to obtain government funding for one. In the summer of 1862 a second balloon was constructed using silk dress lengths: total cost $475.83. This time a professional balloonist, Charles Cevor, was in charge of the project and put on the Confederate payroll (he received $140 a month; Union balloonist Lowe received $10 a day). Cevor first went to Richmond and was later posted back in Charleston.

Few records remain showing Cevor's ballooning activity. There is a February 16, 1863, record that he requested a charge account for the Confederate government to be opened at the Charleston gasworks. No doubt this was an effort to cut some of the red tape that surrounded each inflation as the government was responsible for all bills to keep the balloon in good repair.

The balloon remained in operation until the middle of 1863, when it was lost during the Union siege of Charleston. The generally accepted account is that high winds broke loose the balloon, sending it into Union territory where it was captured. It was later sent to Washington, DC, where it was put on display in the Patent Office and later cut up into small pieces and distributed as souvenirs. No other known balloon making attempts were made after this.

Where did the term "silk dress" balloon come from, which Longstreet romanticized? Probably the light-hearted comment that Langdon Cheeves made to his daughters that "I am buying up all the handsome silk dresses in Savannah, but not for you girls" is the most likely source.

The Union balloon corp would be dissolved less than a year later, after its most important military backer, General McClellan, was replaced by Ulysses S. Grant. Never able to present a serious challenge to the better equipped and government financed Union balloon corps, the Confederates left their own mark in aviation history by using daring and ingenuity. ■

FUN...damentals IN THE SUN

On April 8 through 14 the nation's largest springtime aviation event—the SUN 'N FUN FLY-IN—held its sixteenth annual session at Lakeland Municipal Airport. Over 200,000 aviation enthusiasts from all over the world convened in central Florida, not only to focus on sport aviation, but also to promote safety and support the entire spectrum of general aviation activities.

It all began in 1974 when the Lakeland (FL) chapter of the Experimental Aircraft Association (EAA) decided that a mid-winter fly-in for sport aviation enthusiasts, including owners of antique, classic, homebuilt, and some modern aircraft, should be held in the southeast. The event was planned to include such ingredients as safety and education, together with outdoor fun and socializing.

An instant success, Sun 'n Fun has grown by leaps and bounds, since the first midwinter meeting in 1975. Now held in springtime, it includes dazzling airshows, ultralight displays, and a broad program of pilot seminars and workshops to serve the interests of the aviation enthusiasts who attend. This event also offers unique opportunities for pilots to gain first-hand information about flying and maintenance procedures from a host of aviation experts including the FAA.

This year both Secretary of Transportation Samuel Skinner and FAA Administrator James Busey were scheduled to attend and hold a "meet the boss" session where the public could ask questions. Other FAA personnel spoke on a variety of topics, including such subjects as "Why smart pilots do dumb things," "Flight testing homebuilts," "Airspace and the air traffic control system," "Accident-investigation," and "Aviation legal issues and answers" to name a few.

In previous years these talks and forums meetings, were held in one of the many forum tents on the airport grounds. This year an FAA Aviation Safety Center was officially dedicated on April 9 by Administrator Busey. The 73′ × 102′ building provides offices, meetings rooms, display areas, a Flight Service Station, and a 300 seat auditorium for FAA's use during the Sun 'n Fun Fly-In. On hand during the show were the agency's restored DC-3 and the vertigon from the Civil Aeromedical Institute (CAMI).

In addition to these activities, Flight Standards, Airway Facilities, and Air Traffic Control personnel from FAA's Southern Region acted as support staff to monitor the air show, to staff a temporary tower and a temporary flight service station, and to provide help with communications.

While Sun 'n Fun could certainly be called an expanded "hangar flying" session, it goes far beyond just swapping tall tales. The seven day event featured enough aviation activities to satisfy the most demanding aviator. At least, one-third of the physical space at Lakeland Airport was devoted to what is known as the forum areas. Throughout the week pilots and mechanics were able to seek out information on just about every facet of aviation. In addition to the forums, workshops on practical subjects such as paint and dope application, wood and glue joint techniques, composites for the homebuilder, basic welding, fabric, and aircraft sheet metal were given daily.

A daily airshow and fly-bys by various category of aircraft were also offered along with evening entertainment which is aviation oriented.

More than just another enjoyable gathering of pilots, Sun 'n Fun is proving to be an excellent means of participating in the nationwide "Back to Basics" campaign of the FAA's Accident Prevention Program.

SPECIAL AIR TRAFFIC PROCEDURES

Before attending a national fly-in, check NOTAMS and the Airman's Information Manual for the latest information on arrival and departure procedures. Lakeland Municipal Airport will normally be closed to all itinerant operations from 2 to 5 p.m. EST daily during the fly-in.

NON-RADIO

If there is any possibility that you might be coming to Sun 'n Fun in the future in an aircraft without a radio, it is important that you place your name, aircraft type, identification number, address and the word NON-RADIO on a postcard and mail to: TAMPA ATCT (FAA), Tampa International Airport, Tampa, FL 33607. The receipt of the card will validate your authorization to operate without a radio while the temporary ATC Tower is in operation. The card also indicates that you have read and understand the procedure as shown in NOTAMS. A grass strip is available only with prior permission.

LOUD AND CLEAR

The ear is a rather amazing part of the human body when you think about it. It is responsible for maintaining equilibrium as well as sensing sound. Daily it is assaulted by a wide range of noises, especially in the world of aviation. Many of us ignore these sounds as part of our everyday existence, and if we do experience a temporary deafness, we tend to forget this loss when things seemingly get back to normal. What most of us do not realize is that permanent hearing loss might be a long range effect of these insidious sounds.

In the United States alone hearing loss affects an estimated 16 million people, two million of whom have become seriously hearing impaired or completely deaf. A gradual hearing deterioration is an accepted accompanying of aging medically known as "presbycusis," but hearing loss can also be caused by a variety of reasons—ear infection, head injury, birth defect, etc. In today's machine-oriented society, we are being constantly bombarded by noise pollution which tends to speed up the hearing loss process. How does hearing loss happen?

The following is a simplistic explanation of how the ear works. The outer ear funnels sound waves through the auditory canal to the eardrum. This causes the eardrum to vibrate, sending the vibrations into the air-filled middle ear where they are amplified and transmitted by three tiny bone structures, better known as the hammer, anvil, and stirrup. A pressure change takes place in the inner ear creating waves that travel through the cochlea which contains thousands of tiny hairlike projections. These specialized sensory cells, or hair cells, are attached to the fibers of the auditory (hearing) nerve. When these hair cells are bent, a chemical is released that creates electric impulses that travel via the auditory nerve to the brain. There they are interpreted as sound.

However, exposure to high noise levels can flatten these hair cells making them incapable of creating the necessary electric impulses. Usually if the noise exposure was brief, the cells return to normal, but repeated exposure will cause the hair cells to lose flexibility and even die. The end result is permanent hearing loss.

Noise intensity is categorized into a series of rising levels as sound increases. They are:

1. Audible sound
2. Interference with rest and sleep
3. Interference with speech communication
4. Hearing damage risks
5. Pain (physical damage which may also be accompanied by disorientation, nausea, and vomiting, even if the ear canal is protected)

The last two noise levels are the most dangerous, as they can cause temporary or permanent damage to the ear. Usually if the harmful exposure is quickly followed by return to a quiet environment, the damage will be only a slight or temporary hearing loss. Those who have attended a rock concert can easily identify with this type of experience. However, persons suffering severe damage or hearing loss are not as lucky: to the extent that nerve cells have died, the condition becomes permanent. Prolonged or repeated exposure to work related noises at level 4 or 5 without adequate ear protection can cause irreversible damage.

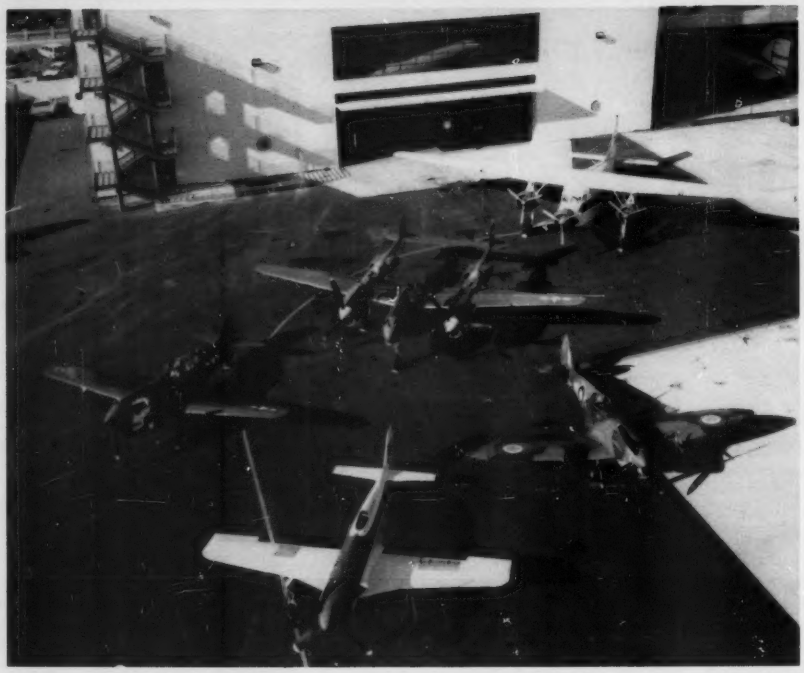
In the world of aviation, noise that is potentially damaging to the ears is often ignored with an attitude of "it can't happen to me." What a pilot must remember is that the minimal hearing requirements to receive at least a third class medical is the ability to hear the whispered voice at three feet. There must also be no acute or chronic disease of the internal ear and no disturbance in equilibrium [FAR §67.17(c)]. Of course, with each step up in class, stricter requirements are added to these. A second class medical requires the ability to hear the whispered voice at eight feet with each ear separately. It also includes no disease of the mastoid and no unhealed (unclosed) perforation of the eardrum [FAR §67.15 (c)]. To qualify for the first class medical a person must demonstrate a hearing acuity of at least 50 percent of normal in each ear throughout the effective speech and radio range as shown by a standard audiometer, or the ability to hear the whispered voice at a distance of at least 20 feet with each ear separately [FAR §67.15(c)]. When your career could be dependent on meeting a medical hearing standard, the "it can't happen to me" attitude could ultimately be unfortunate.

> Medical specialists in World War II used to say they could always tell, when examining a pilot, whether he was a pilot in command or copilot by observing whether his left or right ear was more acute. The pilots often removed the radio headset over the ear next to their fellow pilot, in order to converse, and in time this led to one-sided hearing loss.

Over the years aeronautical engineers have attempted to reduce the noise levels in aircraft, but so far noise reduction also means power reduction—a penalty which most pilots would prefer to avoid. Studies have shown that, *without taking proper precautions* general aviation pilots, who fly an average of three hours or more a week, are likely to find themselves slightly deaf after several years.

If this is the case for the pilot within the cockpit, consider the noise exposure of the aviation personnel working on or near the aircraft on the ground. They are dealing not only with the sound of the aircraft, but also the noise produced by other vehicles, equipment, and tools around them. Again, the cumulative effect of noise could be a major hearing loss in later years.

Short of redesigning aircraft and its associated mechanical equipment to operate on a lower noise level, the only option is to wear protective equipment either in or over your ears. Earplugs are readily available and range from expensive custom-made ones to some costing less than $1. Over-the-ear headsets, helmets, and ear muffs have proved effective, but the main point to remember is that the protective device is only as good as its fit. Always follow manufacturer's directions when using them. To check if the fit is correct, press the earplugs with the forefinger or the earmuffs with the palms. If there is a perceptible decrease in sound, the protective devices are not adjusted properly or are the wrong size. ■



RE-LIVING THE GLORY DAYS. More than 60 aircraft dating as far back as WWI and including U.S. and European warbirds, like the celebrated aircraft shown here, will be auctioned on May 19 and 20 at the Santa Monica (CA) Museum of Flying. Most of the aircraft are in flyable condition. Some $2 million dollars worth of aviation artifacts will also go on the block. For auction and preview information call the museum at (213) 396-5619 (FAX 452-1933).

TRANSPONDER REQUIREMENTS FOR U.S. BORDER FLYING

In order to reduce the potential for midair and near midair collisions, as well as to discourage airborne drug smuggling, FAA has established regulations concerning transponder installation and use for aircraft operating into, within, or across the adjoining U.S. Air Defense Identification Zones (ADIZ).

An ADIZ is designated airspace over land or water, extending up from the surface, within which the ready identification, location, and control of aircraft are required in the interest of U.S. national security. The adjoining U.S. ADIZ extends along the U.S. eastern, southern, and western borders.

Incorporated into Federal Aviation Regulation Part 99, this new rule has two distinct effective dates:

September 7, 1990. All aircraft operating in the affected area must be transponder-equipped and functioning.

December 30, 1900. All aircraft operating in the affected area must have transponders with automatic pressure altitude reporting capability (Mode C or S).

These requirements do not, however, apply to aircraft otherwise authorized by Air Traffic Control, and to those aircraft which were not originally certificated with an engine-driven electrical system, or which have not subsequently been certified with such a system installed. Balloons and gliders are also excluded.

For further information contact Mr. Richard Kagehiro, FAA, Air Traffic Rules Branch, ATO-230, 800 Independence Ave., SW, Washington, DC 20591. Telephone (202) 267-8783.

FLIGHT TESTING HOMEBUILTS

A new advisory circular, the "Amateur-Built Aircraft Flight Testing Handbook," AC-90-89, offers amateur aircraft builders complete safety related recommendations for developing a flight test plan. Copies of AC-90-89 (stock number 050-007-00840-6) are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 at a cost of $3.25.

This AC is an expanded version of an article that appeared in *FAA Aviation News*. A reprint of the article is available without charge from: *FAA Aviation News*, AFS-20, 800 Independence Ave., SW, Washington, DC 20591.

DRUG TESTING POSTPONED FOR SOME 135.1 AIRMEN

The effective date of the Federal Drug Testing Program, as it pertains to certain pilots operating under Federal Aviation Regulation Part 135.1(c), has been postponed until April 10, 1991. Pilots included in this category are those who engage in:

- Student instruction.
- Nonstop sightseeing flights that begin and end at the same airport and are conducted within a 25-statute mile radius of that airport.
- Ferry or training flights
- Aerial work operations, including crop dusting, seeding, spraying and bird dispersing; banner towing; aerial photography or survey; firefighting; helicopter operations in construction or repair work (not including transportation to and from sites); powerline and pipeline patrol approved by FAA.
- Sightseeing flights in hot air balloons.
- Non-stop flights, conducted within a 25-statute mile radius of the airport of takeoff, carrying persons for the purpose of intentional parachute jumping.
- Helicopter flights within a 25-statute mile radius of the airport of takeoff.
- Rotorcraft operations conducted under FAR Part 133 (external loads).
- Federal election campaign operations conducted under FAR §91.59.

Concerned persons may contact the Drug Abatement Branch, AAM-220, FAA, 800 Independence Ave., SW, Washington, DC 20591. Telephone (202) 267-3413.

"REC" PILOT CERTIFICATES NOW BEING ISSUED

The Recreational Pilot, first new pilot category authorized by FAA in nearly a half century, became effective on August 31, 1989, and certification of pilots began in the following months.

Recreational pilots are restricted to flying only basic, single-engine aircraft (standard, experimental or homebuilt), fixed gear only, and requiring only a single pilot. All flights must take place within 50 NM of the airport where instruction by a certificated flight and ground instructor was received.

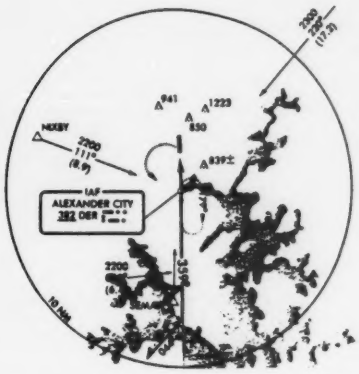
There are additional restrictions with regard to carrying passengers, seating capacity of aircraft, horsepower of engine, maximum altitude, visibility, daylight, etc. On the other hand, the training requirements are simpler than those mandated for private pilots, and the minimum number of required flight hours is lower by one-fourth.

For complete information on the Recreational Pilot Certificate, see the May/June issue of FAA Aviation News, or contact FAA, AFS-840, 800 Independence Ave. S.W., Washington, D.C. Telephone (202) 267-8196.

• Holding As Published

Regarding the attached instrument NDB approach plate for Alexander City (AL), if a pilot were assigned"... holding as published," would he be expected to hold south on the 179° bearing? With right, or left turns? Finally, is there any notation on the DODIAP to a military field to show its currency?

Lloyd Probst
Maxwell, AL



For the given procedure you would be expected to hold south on the 179°magnetic bearing from DER NDB, with right turns. DOD instrument approach books are all stamped on the cover with a date indicating currency.

• Neither Day nor Night

I run a small Flight School, and when I give instruction to a pilot under a hood, I log the hood instruction time separately. In other words, I subtract the hood time from the Day or Night time because when you are under a hood it is neither day nor night.

Is this correct?

Bruce Bailey
League City, TX

Hood time should be logged as simulated instrument time, and should not be subtracted from day or night time. Any flight time incurred between the end of evening civil twilight and the beginning of morning civil twilight (converted to local time) is night flight and should be logged accordingly. All other time is day flight, regardless of restrictions to vision employed for training purposes.

• Updating the FAR's

Your publication FAA Aviation News could provide an additional service by publishing in its bi-monthly issues the FAA FAR changes which were printed and distributed by the GPO during the previous two months. This would be a very useful and important service for FAR users who must retain up-to-date publications. Both subscription and non-subscription FAR's should be included. The once a year FAR status sheet (AC 00-44) is just not enough.

David Elazer
Tel-Aviv, Israel

We would like to hear other reader's comments on this suggestion.

• No Conflict on Student PIC

I would like to take issue with you on statements made in your article, "Student Pilot Privileges Reviewed," in the July/August 1989 issue of FAA AVIATION NEWS. This concerns PIC status during a student pilot's solo flight time.

Since Section 1.1 of the Federal Aviation Regulations defines pilot-in-command as the pilot responsible for the operation of an aircraft in flight, a student pilot flying solo must be the PIC. We cannot say that his flight instructor is responsible for controlling that aircraft—unless we propose to let the instructor log PIC time while his student is flying solo.

Section 61.51, covering pilot log books, states that the aeronautical training and experience used to meet the requirements of a certificate or rating must be shown by a reliable record. It says nothing about a student pilot not being allowed to log solo flight time as PIC time. (I go on the assumption that unless the FARs say you cannot do something, it would not contrary to the rules to do it).

Dan Underwood
Lincoln, NB

Several recent letter replies in your FORUM page have stated flatly that a student pilot may not log pilot in command (PIC) time in an aircraft. That seemed simple enough to follow, but I understand a different policy was expressed in a statement issued by the General Aviation and Commercial Division of Flight Standards, AFS-800, on 1/22/90.

It would appear that AFS-800 and the FAA AVIATION NEWS have conflicting views on this subject. Please clarify.

Charles Winkenverder
Indianola, IA

There is no conflict. The following is excerpted from the recent letter from AFS-800 explaining how student pilots who pursue a commercial pilot certificate without holding a private pilot certificate may credit student solo flight time (in which the student pilot is acting as PIC) toward meeting the PIC experience required for a commercial pilot certificate:

"Under Section 61.51(c)(1) of the Federal Aviation Regulations, a pilot may log as solo flight time only that flight time during which he/she is the sole occupant of the aircraft. This provision permits a student pilot to log such time to meet specified aeronautical experience requirements for the issuance of a private pilot certificate.

"Section 61.51(c)(2)(i) and (ii), provides for the logging of PIC time by persons who hold either a private or commercial pilot certificate. Both of the above provisions however, apply only to the logging of aeronautical training and experience used to meet the requirements for a certificate or rating or the recent flight experience requirement of FAR Part 61. These provisions do not directly address the PIC of the aircraft as that term is defined in FAR Part 1.1. There is no similar provision under §61.51 which permits the holder of a student pilot certificate to log and credit PIC time. However, under §61.51(c)(1), a student pilot performing solo flight operations, although under the direct supervision of a certificated flight instructor, is acting as PIC of the aircraft while acquiring flight experience in accordance with §61.51.

"Therefore, based on our review of the above, flight experience acquired by a student pilot in solo flight operations may be credited toward the PIC flight experience requirements for a certificate or rating, unless specifically precluded from being used for that purpose by applicable provisions of the FAR."

"Specific examples of the latter are §61.65(e)(1), which requires an applicant for an instrument rating to have 50 hours as PIC in cross-country flight in a powered aircraft with other than a student pilot certificate and §61.155(b)(1) which describes specific flight experience which may be logged as PIC."

FAA AVIATION NEWS welcomes comments from our readers. No anonymous letters will be used, but names will be withheld on request. Address: FAA AVIATION NEWS, AFS-20, Washington, DC 20591.

• In Plain English

The January/February Flight Forum response to the letter from Stanford W. White exposes a vast flaw in the FAA's concept of effective communication. If the FAA regulations were written in plain English, rather than complex bureaucratese, the skies would indeed be safer.

Gerald T. Grady, Jr.
Santa Barbara, CA

• IFR Currency

First I want to thank you and your staff for putting out a quality publication and doing it at such a low cost.

Now my question. In order to log an instrument landing, for purposes of IFR currency, what are the minimum weather conditions that must prevail—for a Part 91 operation? For example, if the airport of landing is reporting VFR, but while being vectored to the initial approach fix I have to fly through clouds, does that constitute a creditable instrument approach?

J. Herr
Park Ridge, IL

While it is difficult to answer the question as posed without additional information, instrument currency requirements are based, in part, on instrument approaches rather than landings.

In order for an instrument approach to be counted toward meeting the currency requirements of FAR §61.57(e)(1)(i), the pilot must complete the instrument approach procedure flown as prescribed in FAR §91.116(a) and (b) to minimums (DH or MDA) solely by reference to aircraft instruments, i.e., regardless of whether under instrument meteorological conditions or under simulated instrument conditions with a safety pilot on board the aircraft.

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(continued from page 3)

of people in general aviation, we want it to be as effective as possible. So we're giving it additional resources in order to provide better educational tools and marketing materials to promote aviation safety. I kicked off our new 5-year Back to Basics II program just last week as part of the re-energizing.

- We're going to re-emphasize that we want our inspectors in the field to use discretion and judgement. They will be encouraged and are free to consider all the facts and circumstances, including mitigating factors, and then prescribe remedial training or counseling or other remedies, that are appropriate to the situation. I want them to use their professional judgement and to operate with the flexibility to fit the corrective action to the issue at hand.
- We're setting up new training programs for our inspectors. These will focus not only on additional ways to handle compliance and corrective actions, but also on developing better communications skills and improved human relations.
- We're going to look at simplifying the rules and regulations to enhance understanding and promote compliance.
- We intend to identify certain areas of non-compliance which may be handled administratively rather than through legal action. In many cases, a warning letter or remedial training may clearly be more effective than legal enforcement.
- We are going to re-examine our Sanction Guidance Table to make it consistent with these initiatives.
- We intend to set up procedures to expunge records of violations after a reasonable period of time elapses.

I could go on listing more changes we'll be making. But I think you get the idea where we are headed. The goal for all of us is safety—and we believe the best way to get there is by promoting cooperation, open communications, and compliance.

Our inspectors will now have the use of more tools to promote compliance through counseling, education, and training, and I want to make sure they are using all those tools to help pilots fly more safely.

As I stated before, we will continue to enforce the rules and regulations and to expect 100 percent compliance. But, our public responsibility to enforce the rules does not prevent us from being reasonable. We need to be firm but fair.

I will be looking closely at monthly progress reports on each of the 34 action plans to make sure they are serving our primary goal of safety. I am here to tell you that I am committed to this action, and I will not hesitate to make whatever changes I think are necessary to improve its effectiveness. Meantime, we look forward to working with you to make this program work for all of us—the aviation community, the FAA, but most of all the flying public.

Compliance is our objective. Improved safety in all phases of aviation is our continuing goal.

Thank you. ■